

a) providing a circuit board;

b) forming a first insulating film at least indirectly on said circuit board;

c) forming a lower electrode on said first insulating film;

d) forming a ferroelectric film over said lower electrode;

e) forming an upper electrode over said ferroelectric film, said lower electrode, ferroelectric film, and said upper electrode combining to form a ferroelectric capacitor;

f) creating a synthetic tensile stress upon said ferroelectric capacitor by:

f1) forming a second insulating film over said ferroelectric capacitor;

f2) forming a metal wiring film over said second insulating film; and

f3) forming a surface protective film over said second insulating film and said metal wiring film;

in which step f2) comprises forming the metal wiring film by:

f2a) depositing a TiN layer;

f2b) heat-treating said TiN layer to create a tensile stress; and

f2c) depositing an upper layer on said TiN layer.

17. (Amended) The method as in claim 16, in which step f2b) comprises heat-treating said TiN layer in a temperature range of 200 to 650°C.

Please add the following claim:

18. (Newly Presented) The method as in claim 17, in which in step f2b) said stress in said TiN layer changes from a compression-directional stress to an extensional directional stress.

19. (Newly Presented) The method as in claim 16, in which in step f2b) said stress in said TiN layer changes from a compression-directional stress to an extensional directional stress.

20. (Newly Presented) The method of claim 16, in which:

step f1) comprises depositing said second insulating film using a TEOS-CVD method utilizing TEOS activated by O<sub>3</sub>;

step f2b) comprises heat-treating said TiN layer in a temperature range of 200 to 650°C;

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said upper layer is an Al layer, and said step of depositing said Al layer comprises sputtering while heating said circuit board in a temperature range of 100 to 400°C; and

said step of forming said surface protective film comprises depositing SiN through a plasma-excitation CVD method having an RF power of 300 W or less.

21. (Newly Presented) The method as in claim 20, in which in step f2b) said stress in said TiN layer changes from a compression-directional stress to an extensional directional stress.

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